STATEMENT OF BASIS

as required by LAC 33:IX.3109 for LPDES facilities where a fact sheet is not required under LAC 33:IX.3311, for draft Louisiana Pollutant Discharge Elimination System Permit No. <u>LA0046639</u>; Al <u>19975</u>; <u>PER20070001</u> to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality

Office of Environmental Services

P. O. Box 4313

Baton Rouge, Louisiana 70821-4313

I. THE APPLICANT IS: Town of Arnaudville

Arnaudville Wastewater Treatment Plant

P.O. Box 10

Arnaudville, LA 70512

II. PREPARED BY: Ronda Burtch

DATE PREPARED: August 21, 2007

III. PERMIT ACTION: reissue LPDES permit LA0046639, AI 19975; PER20070001

LPDES permit issued: May 1, 2002 LPDES permit expired: April 30, 2007

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Town of Arnaudville.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located on LA Hwy. 347, 0.53 miles west of the intersection of LA Hwy. 347 and LA Hwy. 740 in Arnaudville, St. Landry Parish.
- D. The treatment facility consists of headworks, two sequencing batch reactors, chlorination facilities, post aeration, aerobic digestor, and sludge drying beds. Disinfection is by chlorination.

E. Outfall 001

Discharge Location: Latitude 30° 24' 16" North

Longitude 91° 56' 24" West

Description: treated sanitary wastewater

Design Capacity: 0.36 MGD

Type of Flow Measurement which the facility is currently using:

Rectangular Weir with Ultrasonic Meter and Totalizer

V. <u>RECEIVING WATERS:</u>

The discharge is into an unnamed parish drainage ditch, thence into a tributary of Bayou Fusilier, thence into Bayou Teche in segment 060801 of the Vermillion - Teche Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 060801 of the Vermilion - Teche Basin are as indicated in the table below. '':

Overall Degree of Support for Segment 060801	Degree of S	apport of Each	i Use		and the second		
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Not Supported	Not Supported	Not Supported	N/A	N/A	N/A	Full

^{1/}The designated uses and degree of support for Segment 060801 of the Vermilion - Teche Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. <u>ENDANGERED SPECIES:</u>

The receiving waterbody, Subsegment 060801 of the Vermilion - Teche Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006 from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Ronda Burtch
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 060801, Vermilion River - Headwaters at Bayou Fusilier-Bourbeaux junction to New Flanders (Ambassador Caffery) Bridge, La. Hwy. 3073, is not listed on LDEQ's Final 2004 303(d) List as impaired. However, subsegment 060801 was previously listed as impaired for phosphorus, nitrogen (nitrate + nitrite as N), organic enrichment/low DO, pathogen indicators, suspended solids/turbidity/siltation, and Carbofuran for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDLs have been established for subsegment 060801:

Review and Assessment of the 1987 Vermilion River Watershed TMDL for Dissolved Oxygen

The 1999 Review and Assessment of the 1987 Vermilion River Watershed TMDL for Dissolved Oxygen, was revised in December 1999, and approved by EPA on April 5, 2001. This TMDL re-established that NPDES permits for individual point sources in the Vermilion Watershed should continue to be issued on the basis of flow rates as follows:

FLOW RATE

PERMIT LIMITS

greater than 25,000 gpd

May - Dec.: 10 mg/l CBOD₅ / 5 mg/l NH₃-N / 5 mg/l DO Jan. - April: 20 mg/l CBOD₅ / 10 mg/l NH₃-N / 5 mg/l DO

25,000 gpd or less

secondary limits year round

Therefore, this discharge will be permitted accordingly.

Vermilion River Fecal Coliform TMDL

This TMDL applies to sanitary dischargers only. As per the *Vermilion River Fecal Coliform TMDL*, "...there will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL." Therefore, Fecal Coliform effluent limitations will be permitted according to current state water quality standards.

TMDL for TSS, Turbidity and Siltation for the 15 Subsegments in the Vermilion River Basin

As per the TMDL for TSS, Turbidity, and Siltation for the 15 Subsegments in the Vermilion River Basin, "Point source loads are so small as to be insignificant, and because effective policies are in place to limit TSS discharges, no specific reductions from point sources are required." Therefore, TSS limitations will be permitted in accordance with Statewide Sanitary Effluent Limitations Policy (SSELP).

TMDL for the Pesticide Carbofuran in the Mermentau and Vermilion Teche River Basins

There are no known point source discharges of Carbofuran in the Mermentau Basin, and therefore no allocation was given to point sources. There is one point source in the Vermilion-Teche (FMC Corp. LA0064360) but they do

not discharge Carbofuran. Likewise no allocation was given to point source discharges in the Vermilion-Teche River Basin. Therefore, no limitations for Carbofuran will be placed in the permit.

As per the February 29, 2000 Delist (Federal Register Notice: Vol. 65, Num. 173, pages 54032-54034, 9/6/2000), assessment of new data and information shows this segment is meeting water quality standards for phosphorus. Therefore, requirements for Total Phosphorus will not be placed in this permit.

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg: (lbs./day)	Monthly Avg	Weekly -Avg:	Basis Ai
CBOD₅				Limits are set in accordance with the 1999 Review and Assessment of the
May - December	30	10 mg/l	15 mg/l	1987 Vermilion River Watershed TMDL for Dissolved Oxygen for dischargers
January – April	60	20 mg/l	30 mg/l	with flows greater than 25,000 GPD.
TSS May – December	45	15 mg/l	23 mg/l	TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a
January – April	60	20 mg/l	30 mg/l	facility. Therefore, a Technology Based Limit has been established through Best Professional Judgment for the treatment technology utilized at this facility and in accordance with the previous permit.
Ammonia-Nitrogen	15	5 mg/l	10 mg/l	Limitations are based upoon the 1999 Review and Assessment of the 1987 Vermilion River Watershed TMDL for Dissolved Oxygen. This TMDL allows for less stringent limits from January through April; however, due to current toxicity concerns, maximum limits of 5/10 will continue to be implemented in the permit.
Dissolved Oxygen	**	5 mg/l min.**	••	Limits are set in accordance with the 1999 Review and Assessment of the 1987 Vermilion River Watershed TMDL for Dissolved Oxygen for dischargers with flows greater than 25,000 GPD.

^{**}This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

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Please note that the Vermilion River TMDL for Sulfate was finalized on March 13, 2001. However, Louisiana revised its water quality standards for sulfates for subsegment 060801 and 060802 located in the Vermilion-Teche River Basin that received water diverted from the Atchafalaya River. Therefore the sulfate numeric criteria for subsegments 060801 and 060802 were revised from 30 mg/l to 70 mg/L; thus eliminating the need for a sulfate TMDL. EPA approved the revisions to the water quality standards on December 22, 2003 and withdrew the previously approved TMDL for this subsegment. Since the Vermilion River TMDL for Sulfates was withdrawn for this subsegment, the sulfate limitations have been removed from this permit.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0046639:Issued: May 1, 2002

Expired: April 30, 2007

INTERIM EFFLUENT LIMITATIONS

Effluent Characteristic	Discharge Lim	<u>itations</u>	Monitoring Rec	<u>uirements</u>
	Daily Avg.	Daily Max.	Measurement Frequency	<u>Sample</u> Type
Flow	Report	Report	1/week	Measure
CBOD ₅	•	·		
(May - December)	10 mg/l	15 mg/l	2/month	Grab
(January – April)	20 mg/l	30 mg/l	2/month	Grab
TSS	_	-		
(May - December)	15 mg/l	23 mg/l	2/month	Grab
(January - April)	20 mg/l	30 mg/l	2/month	Grab
Ammonia-Nitrogen	_	-		
(May - December)	5 mg/l	10 mg/l	2/month	Grab
(January - April)	10 mg/l	20 mg/l	2/month	Grab
Dissolved Oxygen	5 mg/l min.	_	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab
Sulfate	Report		2/month	Grab

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FINAL EFFLUENT LIMITATIONS

Flow	Report	Report	1/week	Measure
CBOD ₅	•	,		
(May - December)	10 mg/l	15 mg/l	2/month	Grab
(January – April)	20 mg/l	30 mg/l	2/month	Grab
TSS				
(May - December)	15 mg/l	23 mg/l	2/month	Grab
(January – April)	20 mg/l	30 mg/l	2/month	Grab
Ammonia-Nitrogen				
(May - December)	5 mg/l	10 mg/l	2/month	Grab
(January - April)	10 mg/l	20 mg/l	2/month	Grab
Dissolved Oxygen	5 mg/l min.		2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab
Sulfate	75.84		2/month	Grab

XI. <u>ENFORCEMENT AND SURVEILLANCE ACTIONS:</u>

A) Inspections

A review of the files indicates that there have been no recent inspections performed at this facility.

B) Compliance and/or Administrative Orders

A review of the files indicates that there are no recent enforcement actions administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning January 1, 2005 through December 31, 2006 has revealed the following violations:

Month	Parameter,	DMR Reported	Permit Limit
January 2005	Dissolved Oxygen, Monthly Avg.	3.5 mg/l	5 mg/l min.
March 2005	Dissolved Oxygen, Monthly Avg.	4.8 mg/l	5 mg/l min.
April 2005	Dissolved Oxygen, Monthly Avg.	3.5 mg/l	5 mg/l min.
May 2005	Fecal Coliform, Weekly Avg. Dissolved Oxygen, Monthly Avg.	>1,000 col/100 ml 2.8 mg/l	400 col/100 ml . 5 mg/l min.
June 2005	Dissolved Oxygen, Monthly Avg.	3.5 mg/l	5 mg/l min.
July 2005	Dissolved Oxygen, Monthly Avg.	2.9 mg/l	5 mg/l min.
August 2005	TSS, Weekly Avg. Fecal Coliform, Monthly Avg. Fecal Coliform, Weekly Avg. Dissolved Oxygen, Monthly Avg. Ammonia-Nitrogen, Moekly Avg. Ammonia-Nitrogen, Weekly Avg.	24 mg/l >1,000 col/100 ml >1,000 col/100 ml 2.5 mg/l 7.1 mg/l 11.4 mg/l	23 mg/l 200 col/100 ml 400 col/100 ml 5 mg/l min. 5 mg/l 10 mg/l
September 2005	TSS, Monthly Avg. Fecal Coliform, Weekly Avg. Dissolved Oxygen, Monthly Avg. Ammonia-Nitrogen, Monthly Avg.	17 mg/l >1,000 col/100 ml 2.8 mg/l 6.2 mg/l	15 mg/l 400 col/100 ml 5 mg/l min. 5 mg/l
October 2005	TSS, Monthly Avg. TSS, Weekly Avg. Fecal Coliform, Monthly Avg.	18 mg/l 27 mg/l >1,000 col/100 ml	15 mg/l 23 mg/l 200 col/100 ml

	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	4 mg/l	5 mg/l min.
	Ammonia-Nitrogen Monthly Avg.	6.8 mg/l	5 mg/l
November 2005	Fecal Coliform, Monthly Avg.	>1,000 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	2.3 mg/l	5 mg/l min.
December 2005	Dissolved Oxygen, Monthly Avg.	4.9 mg/l	5 mg/l min.
!	Ammonia-Nitrogen, Monthly Avg.	5.1 mg/l	5 mg/l
January 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
-	Dissolved Oxygen, Monthly Avg.	3.6 mg/l	5 mg/l min.
	Ammonia-Nitrogen, Monthly Avg.	8 mg/l	5 mg/l
	Ammonia-Nitrogen, Weekly Avg.	14.8 mg/l	10 mg/l
February 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
<u> </u>	Dissolved Oxygen, Monthly Avg.	2.7 mg/l	5 mg/l min.
March 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	2.8 mg/l	5 mg/l min.
April 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
•	Dissolved Oxygen, Monthly Avg.	2.7 mg/l	5 mg/l min.
	Ammonia-Nitrogen, Monthly Avg.	11.9 mg/l	5 mg/l
	Ammonia-Nitrogen, Weekly Avg.	14.2 mg/l	10 mg/l
May 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	2.7 mg/l	5 mg/l min.
June 2006	TSS, Monthly Avg.	19 mg/l	15 mg/l
	Fecal Coliform, Monthly Avg.	>1,000 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	2.8 mg/l	5 mg/l
	Ammonia-Nitrogen, Monthly Avg.	10 mg/l	5 mg/l
	Ammonia-Nitrogen, Weekly Avg.	11.7 mg/l	10 mg/l
July 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	3 mg/l	5 mg/l min.
	Ammonia-Nitrogen, Monthly Avg.	5.5 mg/l	5 mg/l
August 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	2.9 mg/l	5 mg/l min.
September 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	3.3 mg/l	5 mg/l min.
October 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	3 mg/l	5 mg/l min.
	Ammonia-Nitrogen, Monthly Avg.	5.5 mg/l	5 mg/l
November 2006	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
<u> </u>	Dissolved Oxygen, Monthly Avg.	3.2 mg/l	5 mg/l min.
December	Fecal Coliform, Monthly Avg.	>1,000 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	>1,000 col/100 ml	400 col/100 ml
	Dissolved Oxygen, Monthly Avg.	3.1 mg/l	5 mg/l min.
	Ammonia-Nitrogen, Monthly Avg.	7.8 mg/l	5 mg/l

XII. ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.36 MGD.

Effluent loadings are calculated using the following example:

CBOD: 8.34 lb/gal x 0.36 MGD x 10 mg/l = 30 lb/day

At present, the Monitoring Requirements, Sample Types, and Frequency of Sampling as shown in the permit are standard for facilities of flows between 0.10 and 0.50 MGD.

Effluent Characteristics	Monitoring Red Measurement Frequency	uirements Sample Type
Flow CBOD₅ Total Suspended Solids Ammonia-Nitrogen	Continuous 2/month 2/month 2/month	Recorder Grab Grab Grab
Dissolved Oxygen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
На	2/month	Grab

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report <u>each year</u> for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period	Audit Périod	Audit Report Completion
Begins	Ends	Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a reissue permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11-"Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004. Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 -"The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

<u>LPDES Permit Application to Discharge Wastewater</u>, Town of Arnaudville, Arnaudville Wastewater Treatment Plant, February 26, 2007.